Smart Learning Estate – Mauricewood Primary School Investment & design strategy informed by IoT data

SCOTTISH

Overview



A collaboration between Midlothian Council, Mauricewood Primary School and industry partners has derived significant learning and value to the authority ahead of the investment in Mauricewood primary school. The project sought to derive invaluable insight to help better understand the existing usage and performance of the school prior to the extension.

The project deployed sensors and enhanced data analytics to understand how Mauricewood primary schools was being used and how the environment performed. It enabled insights to better inform how the authority invested in the extension of the school.



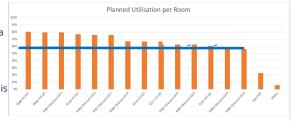
Benefits & ROI



The innovative use of IoT sensors and various digital solutions to provided real time data-driven analysis of space utilisation within the existing school.

- Identify up to 20% capacity in space utilisation.
- Identify high performance spaces and poorly performing spaces.
- Identify long travel distance and inefficiencies in current design.

"This approach has created a new level of insights and capability to support Midlothian Council manage. maintain and invest in our learning estate" Magnus Inglis Midlothian Council



Project

IoT & data analytics to inform Mauricewood Primary School design.

Project Partners

Mauricewood Primary School Midlothian Council, SmartViz & Scottish Futures Trust



FUTURES



Data



The project consider the data source from not just newly deployed

building and organisation to supplement any insights. This included

timetable data as well as data from building management systems.

IoT sensors but the data source that already exists within the

People & Process



The project originated from a CivTech process from 2020 and Scottish Futures Trust continued to support the project through grant funding to scale adoption across the Midlothian estate and apply this approach within the primary school estate with a focus on investment decision making.

The project sought to test, deploy and validate utilisation and environment sensors across a sample rooms and areas. This was done across defined periods of time to inform how the building was currently being used and performing. This insight was then used to inform the design and investment strategy for the building.

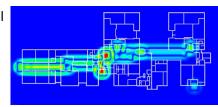
Technology

TRUST



The project developed a package of IoT sensors that could measure occupancy and the environment, coupled with SmartViz data and analytics platform to create an easy and engaging way to derive insights and inform multiple stakeholders in how the building is used, managed and invested.

The project explored simple peel and stick sensors that included people counters and environmental sensors to measure temperature, light and CO2 levels.



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The project enabled the development of the SmartViz platform that seeks to integrate multiple data sets to enable holistic insights into asset performance.